

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 15

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte MORY BENOIT

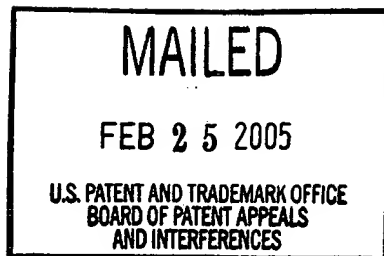
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Appeal No. 2005-0135  
Application No. 09/494,670

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ON BRIEF

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Before KRASS, CRAWFORD, and BLANKENSHIP, Administrative Patent Judges.  
CRAWFORD, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 5, 7, 8, 10 and 11, which are all of the claims pending in this application. Claims 6, 9, and 12 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all the limitations of the base claim.

The appellant's invention relates to a descriptor for the representation from a video indexing viewpoint, of motions of a camera (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellant's brief.

The prior art

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Miyatake et al. (Miyatake)	5,267,034	Nov. 30, 1993
Jeannin	5,929,940	July 27, 1999
Altunbasak et al. (Altunbasak)	6,389,168	May 14, 2002

Ahanger et al. (Ananger) "Video query formulation" (SPIE Proceedings series, 1995)

The rejections

Claims 1, 5, 7, 8, 10 and 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ahanger in view of Altunbasak.

Claim 2 stands rejected under 35 U.S.C. § 103 as being unpatentable over Ahanger and Altunbasak as applied to claim 1 and further in view of Miyatake.

Claims 3 and 4 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ahanger, Altunbasak and Miyatake as applied to claim 2 and further in view of Jeannin.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the answer (Paper No. 13 mailed June, 1, 2004) for the examiner's complete reasoning in support

of the rejections, and to the brief (Paper No. 12 filed March 8, 2004) for the appellant's arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

We turn first the examiner's rejection of claims 1, 5, 7, 8 and 10 to 11 under 35 U.S.C. § 103 as being unpatentable over Ahanger in view of Altunbasak. The examiner is of the view that Ahanger teaches each of the elements of claim 1 except that Ahanger does not disclose that the motion types of the camera are represented by histograms. The examiner relies on Altunbasak for teaching calculating motion histograms based on camera operations. The examiner concludes:

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a descriptor for the representation of motion of a camera in a video sequence as taught by Ahanger et al to incorporate the concept of motion histograms having a dependent variable with the values that each correspond to a respective predefined size of displacement as taught by Altunbasak et al as a specific tool to identify such camera operations so that an user can retrieve video frames that include a query video object [answer page 4].

The appellant argues that the prior art does not disclose a descriptor.

The specification does not define a descriptor explicitly. As such, this term will be given its broadest reasonable interpretation consistent with the specification. When this term is given its broadest reasonable interpretation, we find that it means a device which describes. As Ahanger discloses that different types of camera motion are described so that visual data can be retrieved (page 5), it is our view that Ahanger does indeed disclose a descriptor.

The appellant further argues that even if a descriptor were disclosed in the prior art such descriptor would not represent the motion of a camera in one frame but rather multiple frames.

Our reading of claim 1 does not require that the descriptor represent camera motion within one frame but rather that the descriptor represent camera motion of a sequence of one or more frames. As Ahanger discloses a descriptor that represents camera motion within a sequence of more than one frame, the Ahanger descriptor satisfies this portion of the claim.

Appellant finally argues that Ahanger does not describe each motion type so as to be subdivided into two components.

While the appellant is correct that the Ahanger does not specifically state that the motion types are subdivided into two components, Figure 1 of Ahanger shows vectors which represent the various camera motions along various axes. In our view, a camera motion in one direction along an axis as represented by the Ahanger Fig. 1 vectors has

two components; one component having a positive value and the other component having a zero value.

In view of the foregoing, we will sustain the rejection as it is directed to claim 1. We will also sustain this rejection as it is directed to claims 5, 7, 8, 10 and 11 as these claims stand or fall with claim 1 (brief at page 6)

We turn next to the examiner's rejection of claim 2 under 35 U.S.C. 103 as being unpatentable over Ahanger and Altunbasak as applied to claim 1 and further in view of Miyatake. The examiner relies on Miyatake for disclosing a motion type having its own speed described in a unified way by choosing a common unit, as recited in claim 2.

Appellant makes the same argument regarding this rejection as was made in regard to the rejection of claim 1. We will sustain this rejection for the same reasons stated above for claim 1.

We turn lastly to the examiner's rejection of claims 3 and 4 under 35 U.S.C. § 103 as being unpatentable over Ahanger, Altunbasak, and Miyatake as applied to claim 2 and further in view of Jeannin. The examiner relies on Jeannin for disclosing a conventional method of motion estimation comprising motion type speed represented by a pixel-displacement value working at the half-pixel accuracy.

Appellant makes no argument regarding the rejection of claim 3 different from the arguments made regarding claim 1. Therefore, we will sustain this rejection for the same reasons given above for claim 1.


In regard to claim 4, the examiner has taken Official Notice that it is considered quite obvious and well known to simply round the speed (motion vector) to the closest half-pixel value and multiply by 2. The appellant has traversed this Official Notice (See Paper No. 6). As the appellant has traversed the Official Notice, the examiner was under an obligation to provide a reference to provide a supporting reference. This the examiner has not done. Therefore, we will not sustain the rejection as it is directed to claim 4.

#### CONCLUSION

To summarize, the decision of the examiner to reject claim 1 to 3, 5, 7, 8 and 10 and 11 under 35 U.S.C. § 103 is sustained. The examiner's rejection of claim 4 under 35 U.S.C. § 103 is not sustained.

**AFFIRMED-IN-PART**

MURRIEL E. CRAWFORD  
Administrative Patent Judge

  
HOWARD B. BLANKENSHIP  
Administrative Patent Judge

) BOARD OF PATENT  
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) INTERFERENCES

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